

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 94-097
SITE CLEANUP REQUIREMENTS FOR:

CITY OF SUNNYVALE
SUNNYVALE CORPORATION YARD
221 COMMERCIAL STREET
SUNNYVALE, SANTA CLARA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter called the Board) finds that:

1. The Sunnyvale Corporation Yard is located near the intersection of Commercial and California Streets in the City of Sunnyvale (Figure 1). The site covers approximately 9 acres, and the regional topography slopes very gently toward the north. The site is paved with asphalt, and is used for storage and maintenance of equipment and materials. Located on the site were an underground gasoline tank and an underground waste oil tank. A hazardous materials storage area is also located on the site.
2. In 1986 the underground gasoline tank was precision tested and determined to be leaking. In 1987 and 1988 the gasoline tank and the waste oil were removed from the site. Soil samples obtained from the tank excavations confirmed that both tanks had leaked.
3. In 1988 a soil gas and groundwater investigation was conducted by the Regional Board in order to identify potential sources of groundwater contamination in the region. Elevated levels of organic solvents were detected at the Sunnyvale Corporation Yard, including trichloroethylene (TCE), tetrachloroethylene (PCE), and trans 1,2-dichloroethylene (DCE). Since then, a number of groundwater wells have been installed on the site, and monitoring indicates that high levels of organic solvents persist in the groundwater.
4. Several sites exist in the vicinity of the Sunnyvale Corporation Yard site that are sources of soil and/or ground water pollution. These facilities include, but may not be limited to, Hewlett-Packard, located at 974 E. Argues Street; Pilkington Barnes Hind, located at 895 Kifer Road; and Mohawk Laboratories, located at 932 Kifer Road.

The Board has adopted orders requiring further characterization and cleanup of ground water for Hewlett-

Packard, Pilkington Barnes Hind, and Mohawk Laboratories. The Board intends to update existing orders and adopt new orders for sites in the study area. As additional information is generated for these and other facilities in the area, the Board may modify this Order and the dischargers named in this Order.

5. The City of Sunnyvale is a discharger because it owns and operates the 221 Commercial Street site, including the former underground storage tanks.
6. The area in the vicinity of the Sunnyvale Corporation Yard is underlain by unconsolidated sedimentary deposits of clay, silt, sand, and gravel extending to depths of at least 1,000 feet below the ground surface. These deposits have been subdivided into aquifers (water producing zones), and semi-permeable to relatively impermeable saturated zones (aquitards). The shallow groundwater aquifer beneath the Sunnyvale Corporation Yard is encountered at approximately 15 to 20 feet, and extends to approximately 23 to 30 feet below the ground surface. The ground water gradient within the shallow aquifer slopes in a northeasterly direction. No groundwater monitoring wells have been advanced beyond the shallow aquifer.
7. The intent of this Order is to prescribe a time schedule both to completely define the source of pollution at the Sunnyvale Corporation Yard site, to determine the extent of the pollution emanating from the on-site sources, and to evaluate final remedial action alternatives for the pollution. No previous orders have been adopted for this site.
8. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on December 17, 1986, and subsequently amended it. The Basin Plan contains water quality objectives for South San Francisco Bay and contiguous surface and ground waters.
9. The Basin Plan defines existing and potential beneficial uses of the ground water underlying and adjacent to the site. These include:
 - a. Industrial process water supply
 - b. Industrial service supply
 - c. Municipal and domestic supply
 - d. Agricultural supply.
10. The Board adopted Resolution No. 89-39, "Incorporation of 'Sources of Drinking Water' Policy into the Water Quality Control Plan" on March 15, 1989. This policy defines ground water as suitable or potentially suitable for municipal or domestic supply as that which : 1) has a total dissolved

solids content of less than 3,000 mg/l, and 2) is capable of providing sufficient water to supply a single well with at least 200 gallons a day. The ground water underlying and adjacent to the site falls within this category.

11. The discharger has caused or permitted, and threatens to cause or permit, waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.
12. Groundwater cleanup standards to be established for the site will be in accordance with State Water Resources Control Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California". The cleanup standards will be based on: a) the Federal or State Primary or Secondary Maximum Contaminant Level (MCL) or State Action Level (AL), or b) more stringent levels based upon a site specific risk assessment and technical and economic feasibility. If an MCL or AL has not been promulgated, the cleanup standard will be based on the best available site- and chemical-specific health information and will be protective of human health and the environment.
13. For most VOC contaminated sites, a cleanup standard of 1 ppm for total VOCs has been established for unsaturated soils. This cleanup standard will be applied to the Sunnyvale Corporation Yard site unless the discharger is able to demonstrate, with site-specific data, that higher levels of VOCs in the soils will not threaten the quality of waters of the State and that human health and the environment are protected.
14. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.
15. Pursuant to Section 13304 of the Water Code, the discharger is hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order.
16. The Board has notified the discharger and interested agencies and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the discharge and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.
17. The Board, in a public meeting, heard and considered all

comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the discharger shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.
2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.
3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of the pollutants or distortion of portions of the plume under investigation are prohibited.

B. SPECIFICATIONS

1. The storage, handling, treatment or disposal of polluted soil or ground water shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
2. The discharger shall conduct monitoring activities as needed to define the current local hydrogeologic conditions, and the lateral and vertical extent of ground water pollution. Should monitoring results show evidence of plume migration, additional plume characterization may be required.

C. PROVISIONS

1. The discharger shall comply with all Prohibitions and Specifications immediately, except as modified in accordance with the following time schedule and tasks:

a) COMPLETION DATE: November 18, 1994

TASK: REMEDIAL INVESTIGATION WORKPLAN Submit a technical report acceptable to the Executive Officer, which evaluates previous technical data and includes a workplan for additional soil and

ground water investigation in order to completely define the sources of pollution within the site, and the extent of pollution emanating from the sources. The workplan should also include a ground water monitoring and sampling plan.

b) COMPLETION DATE: December 19, 1994

TASK: CHEMICAL USE HISTORY REPORT Submit a technical report acceptable to the Executive Officer describing and documenting all chemical use at the site. The report should describe the acquisition, use, and disposal of chemicals. All processes and activities associated with chemical usage should also be described and documented.

c) COMPLETION DATE: January 20, 1995

TASK: IMPLEMENTATION OF REMEDIAL INVESTIGATION Submit a technical report acceptable to the Executive Officer documenting implementation of the remedial investigation identified in Provision C.1.a. The report should include documentation of the occurrence of field investigations performed pursuant to the Remedial Investigation Workplan. Information regarding the results of the investigations performed, such as boring logs, CPT logs and laboratory analytical reports will not be required in this submittal.

d) COMPLETION DATE: March 21, 1995

TASK: COMPLETION OF REMEDIAL INVESTIGATION REPORT Submit a technical report acceptable to the Executive Officer, pursuant to the remedial investigation workplan identified in Provision C.1.a., containing the results of the remedial investigation.

e) COMPLETION DATE: June 21, 1995

TASK: COMPLETION OF FEASIBILITY STUDY REPORT AND PROPOSED REMEDIAL ACTION PLAN Submit a technical report acceptable to the Executive Officer, based on the results of the remedial investigation submitted for Provision C.1.d., containing the feasibility study and proposed remedial action plan. This technical report shall include proposed soil and ground water cleanup standards based on 1) Specifications B.3. and B.4., and 2) a risk-based approach for all pollutants that may remain in the soil and groundwater. The report should also

include a time schedule necessary to implement the proposed final remedial actions.

2. Technical reports evaluating proposed interim and final remedial actions will include a projection of the cost, effectiveness, benefits and impact on public health, welfare, and environment of each alternative action. The remedial investigation and feasibility study shall consider Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300 et seq.); Superfund Amendments and Reauthorization Act of 1986; CERCLA/SARA guidance documents with reference to Remedial Investigations and Feasibility Studies and Removal Actions; and both the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California" and Resolution No. 92-49, "Policies and Procedures for Investigations and Cleanup and Abatement of Discharges Under Water Code Section 13304."
3. Any proposal for the discharge of extracted ground water must initially consider the feasibility of reclamation, or discharge to a publicly owned treatment works (POTW), as specified in Board Resolution No. 88-160. If it can be demonstrated that reclamation or discharge to a POTW is technically and economically unfeasible, a proposal for discharge to surface water shall be considered. Such proposal for discharge to surface water shall include the above demonstration and a completed application for an NPDES permit.
4. If the discharger is delayed, interrupted or prevented from meeting one or more of the completion dates specified in this Order, the discharger shall promptly notify the Executive Officer. In the event of such delays, the Board may consider modification of the task completion dates established in this Order.
5. The discharger shall submit to the Board acceptable self-monitoring program reports containing results of work performed according to a program approved by the Executive Officer.
6. The self-monitoring program reports shall also summarize the status of compliance with the Prohibitions, Specifications, and Provisions of this Order and shall be submitted quarterly to the Board, according to the schedule below, commencing with the report for the fourth quarter, due January 31, 1994.

Quarter	1st quarter	2nd quarter	3rd quarter	4th quarter
Period	Jan-March	April-June	July-Sept	Oct-Dec
Due Date	April 30	July 31	October 31	January 31

The quarterly reports shall include:

- a. a summary of work completed since the previous quarterly report, and work projected to be completed by the time of the next report,
 - b. appropriately scaled and labeled maps showing the location of all monitoring wells, extraction wells, and existing structures,
 - c. updated water table and piezometric surface maps for all affected water bearing zones, or alternatively, isoconcentration maps for key contaminants in all affected water bearing zones,
 - d. a cumulative tabulation of all well construction data, ground water levels and chemical analysis results for site monitoring wells in the monitoring program approved by the Executive Officer,
 - e. a cumulative tabulation of volume of extracted ground water and chemical analysis for all site ground water extraction wells,
 - f. identification of potential problems which will cause or threaten to cause noncompliance with this Order and what actions are being taken or planned to prevent these obstacles from resulting in noncompliance with this Order, and
 - g. in the event of noncompliance with the Prohibitions, Provisions and Specifications of this Order, the report shall include written justification for noncompliance and proposed actions to achieve compliance.
7. All hydrogeological plans, specifications, reports, and documents shall be signed by or stamped with the seal of a registered geologist, certified engineering geologist or professional engineer.
 8. All samples shall be analyzed by State certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control records for Board review.
 9. The discharger shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.
 10. Copies of all correspondence, reports, and documents pertaining to compliance with the Prohibitions,

Specifications, and Provisions of this Order, shall be provided to the following agencies:

- a. Santa Clara Valley Water District
- b. Santa Clara County Health Department
- c. City of Sunnyvale


The Executive Officer may additionally require copies to be provided to the California Environmental Protection Agency - Department of Toxic Substances Control, the U.S. Environmental Protection Agency, Region IX, and/or a local repository for public use.

- 11. The discharger shall permit the Board or its authorized representatives, in accordance with Section 13267(c) of the California Water Code:
 - a. Entry upon premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
 - b. Access to copy any records required to be kept under the terms and conditions of this Order.
 - c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
 - d. Sampling of any ground water or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the discharger.
- 12. The discharger shall file a report on any changes in site occupancy and ownership associated with the 221 Commercial Street site.
- 13. The discharger shall be liable, pursuant to Section 13304 of the Water Code, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the site addressed by this Order is enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to procedures established in that program. Any disputes raised by the discharger over the reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures of that program.
- 14. If any hazardous substance is discharged in or on any waters of the State, or discharged and deposited where it is, or probably will be discharged in or on any waters of the State, the discharger shall report such a discharge

to this Board, at (510) 286-1255 on weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-office hours. A written report shall be filed with the Board within five (5) working days and shall contain information relative to: the nature of waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention Control and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected area, nature of effects, corrective measures that have been taken or planned, and a schedule of these activities, and persons notified.

15. The Board will review this Order periodically and may revise the requirements when necessary.

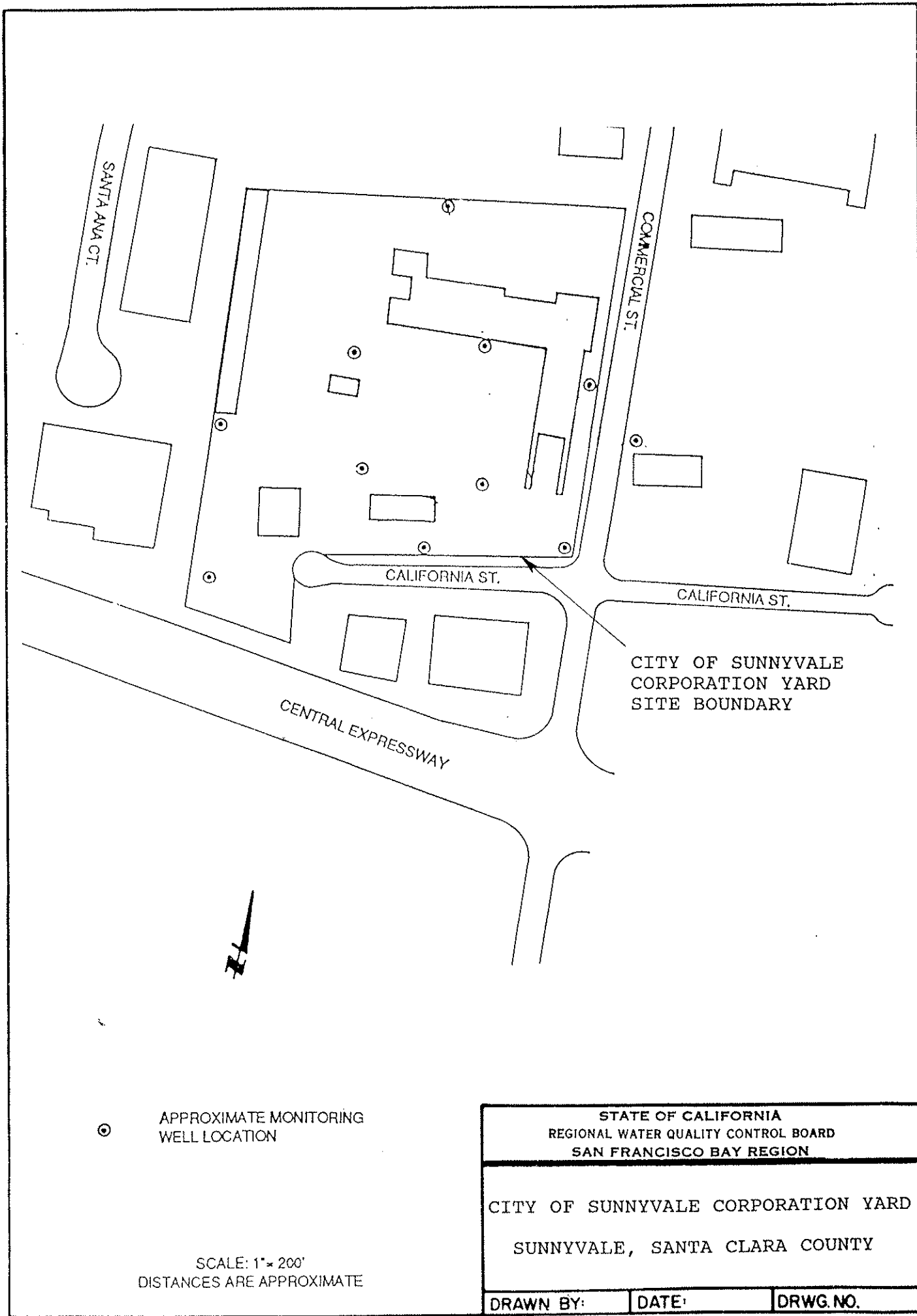
I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on August 17, 1994.



Steven R. Ritchie
Executive Officer

Attachments:

Figure 1. Site Map



○ APPROXIMATE MONITORING WELL LOCATION

SCALE: 1" = 200'
DISTANCES ARE APPROXIMATE

STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION		
CITY OF SUNNYVALE CORPORATION YARD SUNNYVALE, SANTA CLARA COUNTY		
DRAWN BY:	DATE:	DRWG. NO.